Attorney Docket No.: 2004P00446WOUS

## IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for generating training data  $[[(D_T)]]$  for an automatic speech <u>recognizer recogniser (2) for operating at a particular first sampling frequency</u>  $[[(f_H)]]$ , comprising the following steps:

deriving spectral characteristics [[( $S_L$ )]] from audio data [[( $D_L$ )]] sampled at a second frequency [[( $f_L$ )]] lower than the first sampling frequency [[( $f_H$ )]];

extending [[the]]  $\underline{a}$  bandwidth of the spectral characteristics [[(S<sub>L</sub>)]] by retrieving bandwidth extending information [[(I<sub>BE</sub>)]] from a codebook [[(6)]] so that the audio data sampled at the second frequency is compatible with the automatic speech recognizer operating at the first sampling frequency; and

processing the bandwidth extended spectral characteristics [[( $S_{LE}$ )]] to give the required training data [[( $D_T$ )]].

- 2. (Currently Amended) A method according to claim 1, where the conversion of audio data  $(D_H, D_L)$  into sets of spectral characteristics  $(S_H, S_L)$  comprises calculating the FFT of the audio data  $(D_H, D_L)$  to give a set of Fourier coefficients [[(31)]] and filtering the output of the FFT with a filterbank [[(22)]] to give a set of filterbank power values [[(32)]].
- 3. (Currently Amended) A method according to claim 2, where the conversion of audio data  $(D_H, D_L)$  into sets of spectral characteristics  $(S_H, S_L)$  comprises processing the FFT coefficients [[(31)]] or the filterbank power values [[(32)]] to give a set of log-spectral coefficients [[(33)]].
- 4. (Currently Amended) A method according to claim 1, where the processing of bandwidth extended spectral characteristics  $[[(S_{LE})]]$  comprises a step of altering the spectrum to adjust signal properties of the audio data  $[[(D_L)]]$ .

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- 5. (Currently Amended) A method according to claim 4, where the step of altering the spectrum to adjust the signal properties of the audio data  $[[(D_L)]]$  is performed in the linear domain.
- 6. (Currently Amended) A method according to claim 1, where the derivation of the spectral characteristics  $[[(S_L)]]$  from audio data  $[[(D_L)]]$  is followed by a step subtracting the mean spectrum from the spectral characteristics  $[[(S_L)]]$ .
- 7. (Currently Amended) A method for training an automatic speech recognition system [[(2)]] wherein the data  $[[(D_T)]]$  used for training are at least partially generated using a method according to to claim 1.

## 8 - 13. (Cancelled)

14. (Currently Amended) A system [[(1)]] for generating training data [[( $D_T$ )]] for an automatic speech <u>processor</u> recogniser (2) operating at a particular first sampling frequency [[( $f_H$ )]], comprising:

a converter [[(3)]] for deriving spectral characteristics [[( $S_L$ )]] from audio data [[( $D_C$ )]] sampled at a second frequency [[( $f_L$ )]] lower than the first sampling frequency [[( $f_H$ )]];

a retrieval unit [[(4)]] for retrieving bandwidth extending information for the spectral characteristics [[( $S_L$ )]] from a codebook [[(6)]] so that the audio data sampled at the second frequency is compatible with the automatic speech recognizer operating at the first sampling frequency;

a processing module [[(7)]] for processing the bandwidth-extended spectral characteristics [[( $S_{LE}$ )]] to give the required training data [[( $D_T$ )]].

## 15. (Cancelled)